MATH 7

Write your questions here!

Complex Fractions

$\dfrac{\frac{1}{4}}{\frac{2}{3}}$

$\dfrac{\frac{2}{3}}{4}$

$\dfrac{5}{2\frac{1}{2}}$

Rate

You bike 30 miles in 5 hours. What is your average speed?

You jog 3 miles in $\frac{1}{3}$ hours. What is your average speed?

You walk $1\frac{1}{3}$ miles in $\frac{2}{5}$ hours. What is your average speed?

Proportional

The following are proportional. Find the constant of proportionality.

Time ***(min)***	**Distance** ***(meters)***
$\frac{1}{3}$	$\frac{5}{2}$
$1\frac{1}{2}$	$11\frac{1}{4}$
$\frac{14}{15}$	7

Mr. Kelly uses $2\frac{1}{2}$ scoops of Whey Protein in 12 ounces of soy milk.

Scoops (#)	***Soy Milk (ounces)***
$2\frac{1}{2}$	
2	
$\frac{2}{3}$	

SUMMARY:

Now, summarize your notes here!

3.4 Rates with Complex Fractions

PRACTICE

Divide the complex fractions. Reduce to simplest form if possible.

1. $\dfrac{\frac{3}{4}}{\frac{2}{5}}$

2. $\dfrac{4}{\frac{2}{3}}$

3. $\dfrac{\frac{3}{7}}{5}$

Find the rate. LABEL YOUR ANSWER!

4. It rained $2\frac{3}{4}$ inches in 3 hours. What is the average amount of rain per hour?

5. Dustin made $3\frac{1}{5}$ pies in $\frac{4}{5}$ of a day. What is the average amount of pies per day?

6. $2\frac{2}{3}$ pounds of peanuts cost you 4 dollars. What is the price per pound?

The following are proportional. Find k and write an equation to represent the situation.

7.

Time ***(min)***	**Distance** ***(meters)***
$1\frac{1}{2}$	$\frac{9}{4}$
3	$\frac{9}{2}$
5	$7\frac{1}{4}$

8.

Gas ***(liters)***	**Distance** ***(km)***
2	$\frac{3}{2}$
$2\frac{1}{2}$	$\frac{15}{8}$
$\frac{4}{5}$	$\frac{3}{5}$

9.

Gummy Bears ***(pound)***	$\frac{1}{8}$	$\frac{12}{5}$	$3\frac{1}{2}$
Cost ***(dollars)***	$\frac{5}{24}$	4	$\frac{35}{6}$

The following are proportional. Find k. Fill in the table and complete the sentence.

10. Caitlyn can swim 12 laps in $\frac{1}{4}$ hours. Find her average speed in laps per hour?

Time ***(hours)***	**Laps** ***(#)***
$\frac{1}{4}$	
$\frac{2}{3}$	

In $\frac{2}{3}$ hours, Caitlyn swims _____ laps.

11. Joey packed $2\frac{1}{4}$ boxes in $\frac{1}{4}$ hours. Find the average speed in boxes per hour.

Time ***(hours)***	**Boxes Packed** ***(#)***
$\frac{1}{4}$	
3	

In 3 hours, Joey packs _____ boxes.

12. You buy $2\frac{3}{4}$ yards of fabric for $4\frac{1}{2}$ dollars. Find the price per yard of fabric.

Length ***(yard)***	**Cost** ***($)***
$2\frac{3}{4}$	
$\frac{1}{2}$	

You buy $\frac{1}{2}$ a yard of fabric for _____ dollars.

13. Sophie can read $\frac{3}{4}$ pages in $\frac{3}{5}$ minutes. Find the average speed she can read in pages per minute.

Time ***(min)***	**Pages Read** ***(#)***
$\frac{3}{5}$	
$2\frac{2}{3}$	

Sophie reads _____ pages in $2\frac{2}{3}$ minutes.

WRAP UP

1. Divide.

$$\frac{\frac{3}{4}}{\frac{2}{5}}$$

2. Anna made $2\frac{3}{5}$ cakes in $\frac{3}{4}$ of a day. What is the average amount of cakes per day?

3. Use unit rates to compare the prices of the following corn shops. Which shop has a better price? Justify!

Kelly Corn
$8\frac{3}{4}$ pounds
for
7 dollars

Corey Corn
$3\frac{1}{8}$ pounds
for
$2\frac{1}{2}$ dollars

EXIT TICKET –

Mr. Bean eats $\frac{3}{4}$ of a burrito every $\frac{3}{5}$ days. Mr. Bean figures that he eats 4 burritos every 5 days. Is he correct? Explain why or why not.